

FLUKE FALL PREMIERS SEE 18 GREAT INSTRUMENTS

NEC, CHICAGO, OCTOBER 3-5, 1966, BOOTH 768
ISA, NEW YORK CITY, OCTOBER 24-27, 1966, BOOTH 2139
NEREM, BOSTON, NOVEMBER 2-4, 1966, BOOTH 1D 83

NEW DC VOLTAGE AND RATIO CALIBRATION SYSTEM

All solid state... has its own self-calibrating KV divider... adjustable reference divider... high impedance null detector... dc voltage calibrator—accurate to better than 10 ppm from 0 to 1100 volts... dc voltage ratio calibration accurate to ± 0.1 ppm from 0 to 1100 volts.

FOR ALL OF THESE APPLICATIONS

DC voltage standard... dc voltage ratio standard... differential voltmeter... voltage divider... differential and digital voltmeters... reference supplies... laboratory potentiometers and... X-Y recorders.

Provides lab accuracy in portable instrumentation

Now Fluke 7101 DC Voltage and Ratio Calibration

has all of the most wanted for both standards laboratory division measurement and applications.

Component in the system is a "off the shelf" Fluke built with traditional detail and unsurpassed workmanship. Components, from top to bottom, Model 720A Kelvin-Varley divider, Model 721A Lead Model 845AR Null microvoltmeter, Model 750A divider, and Model 332A calibrator.

A LEAD COMPENSATOR

Lead compensation, where a standard and test range great as 4000:1, is shown the Model 721A. Mode for electrically interchanging and test divider, as well as ON-OFF for operator provided. Price: \$245.

NULL DETECTOR

The Model 845AR has a 10 megohm input resistance and 19 end-scale ranges from 1 microvolt to 1000 volts dc. 1100 volts may be applied to the input on any range without damage. The Model 845AR may be connected to 1100 volts (either terminal).

2 720A KELVIN-VARLEY DIVIDER

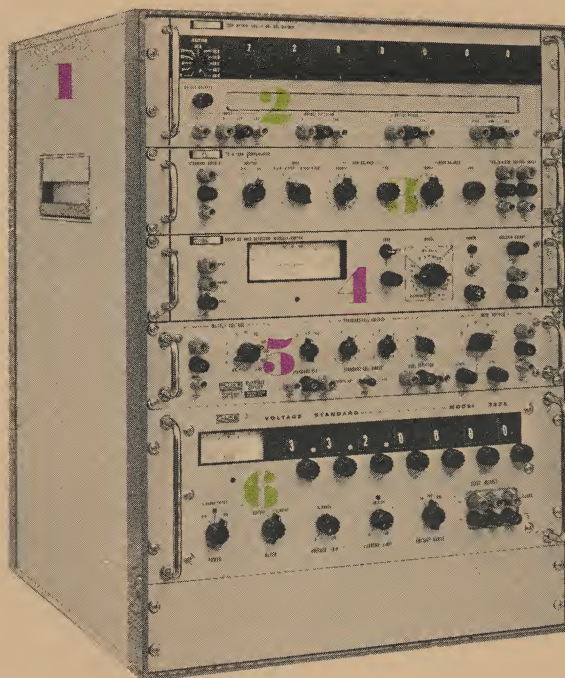
The Model 720A incorporates an internal Wheatstone bridge and adjustable resistors on the first three decades, making it a "self-calibrating" ratio standard with ± 0.1 ppm absolute linearity. Price: \$1,195.

5 750A REFERENCE DIVIDER

The Model 750A is an adjustable resistive divider with a ratio accuracy of $\pm 0.001\%$ of output ± 5 μ volts for one year. Because its accuracy is related to saturated standard cells, the output is considered traceable to the National Bureau of Standards. Calibration can be maintained at better than ± 5 ppm of output. Price: \$995.

6 332A VOLTAGE CALIBRATOR

The Model 332A is an extremely stable and accurate dc voltage source, covering the range from 0 to 1111.1110 volts. The basic accuracy of the Model 332A is ± 30 ppm of setting and may be used either as a voltage calibrator or as shown in a system. In the 7101 system the Model 332A provides adequate stability and resolution, allowing voltage measurement to better than ± 10 ppm of output. Price: \$2,490.



7 THE FIRST TRUE RMS DIFFERENTIAL VOLTMETER, 931A

Here is one of the major advances in ac metrology of the past 20 years. The Fluke 931A will measure virtually any waveform within 0.05% from 30 Hz to 50 KHz. Overall frequency response is 10 Hz to 1 MHz. Range is 0.01 to 1100 volts. Ten to one crest factor accounts for effects caused by voltage spikes and pulse trains. Comes with or without probe. Both combination line/rechargeable battery powered versions are available. Base price: \$895.

8 INFINITE RESISTANCE AT NULL TO 1100 VOLTS, 895A

This new differential voltmeter is accurate to $\pm 0.0025\%$ of dial setting. Using the ratio measurement feature, two external sources can be compared to a resolution of 0.0001%. In the TVM mode, input resistance is 100 megohms. Reference regulation is 0.0002%. Stability is 13 ppm peak-to-peak per 60 days. Readout is 6 digit inline to a dial resolution of 1 ppm. Recorder output is well isolated and linear to within 0.5% of end scale. Ten percent overranging minimizes range changing and offers increased resolution on the lower end of each range. Price: \$1,195.

9 881A SOLID STATE DC DIFFERENTIAL VOLTMETER

Modestly priced at \$825, the Fluke 881A is available in line powered or combination line and battery powered versions. Range is 0 to 1100 volts. Accuracy is $\pm 0.005\%$. Maximum meter resolution is 1 μV .

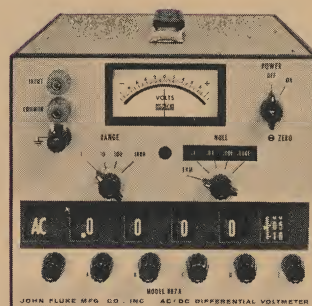
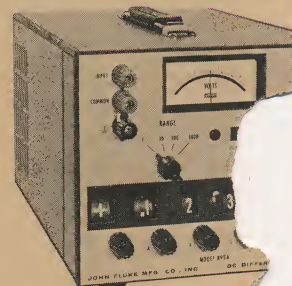
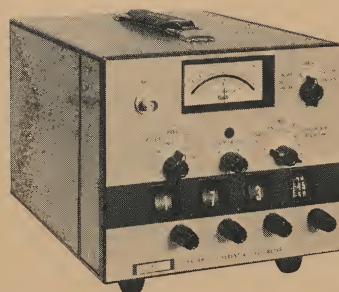
10 THE FIRST TRULY PORTABLE LABORATORY STANDARD, 885A

Because it weighs only 14 pounds, offers an accuracy of 0.0025%, and operates from either line or battery power, the Fluke 885A is a truly portable laboratory standard. Maximum meter resolution is a mere 0.1 ppm. Peak-to-peak reference stability is 15 ppm for 60 days. If desired, the Fluke 885A can be used as an isolation amplifier. When the instrument is powered from batteries, ground loops are completely eliminated. Range is 0 to 1100 volts. Null sensitivity is 100 microvolts full scale. Price: \$965 plus \$130 for the rechargeable battery.

11 ACCURATE AC/DC SOLID STATE DIFFERENTIAL VOLTMETER, 887A

The Fluke 887A features a dc accuracy of $\pm 0.0025\%$ and an ac accuracy of $\pm 0.05\%$ over a range of 0 to 1100 volts. Basic frequency range is 20 Hz to 5 KHz with reduced accuracy to 5 Hz and 100 KHz. Dial resolution is 1 ppm. Full scale null sensitivity is 100 microvolts. The Fluke 887A is available in line powered and combination line powered and rechargeable battery versions. Price: \$1,375 plus \$160 for the rechargeable battery pack.

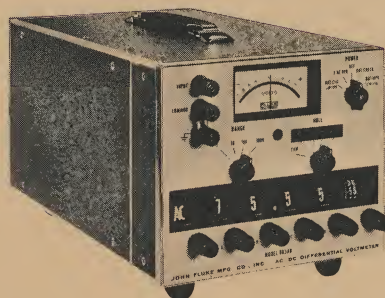
NEW ADDITIONS TO DIFFERENTIAL VOLTMETERS



TO THE BROADEST LINE OF VOLTMMETERS ON THE MARKET TODAY

2 GENERAL PURPOSE AC/DC DIFFERENTIAL VOLTMETER, 883A

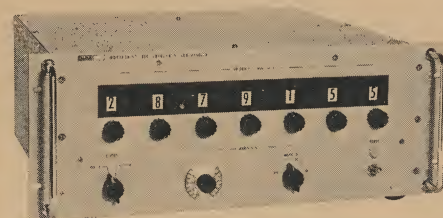
Here is a compact solid state ac/dc differential voltmeter, offered in either a line powered or battery powered version. Accuracy is $\pm 0.005\%$ of input on dc and $\pm 0.1\%$ of input on ac. Null sensitivity is $100 \mu\text{v}$ full scale. Weight is less than 14 pounds. Price: \$1,215 plus \$160 for the rechargeable battery pack.



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3 NEW FLUKE/MONTRONICS FREQUENCY SYNTHESIZER, 314B

This instrument wherever operating temperatures range from 55°C . The 314B makes remote control switching of HF communications, RDF, and radar sounding systems possible. Spurious content is 100 db below the fundamental output. It provides local oscillator signals for the Racal VLF receivers.



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FLUKE/MONTRONICS RECEIVER/ COMPARATOR GETS WORLDWIDE VLF RECEPTION

Involved in frequency reception, this winner is for you. Sensitivity is $10 \mu\text{V}$. The Model 207-1 covers 240 channels, from 19 kc plus a 60 kc channel. Featuring a dynamic range of over 80 db without AGC or operator adjustment, proper operation over a range of signal level variations 100 times greater than anything else on the market. Solid state integrated circuits and modular design insure long term reliability. Unique phase tracking servo, with chart and digital readout, simplifies use.

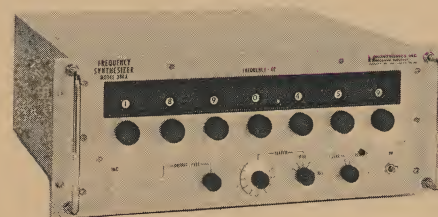


14

LOW COST SYNTHESIZER

Here's the best value in frequency synthesizers on the market today. Priced at only \$6,950.

The Model 304A covers the frequency band of 50 Hz to 11 MHz in 1 Hz steps. Output is $1 \text{ volt rms} \pm 1 \text{ db}$. Long term stability and accuracy equal that of the input standard. Switching time from one frequency to any other is less than 1 millisecond .



15

I would like more information on the circled items.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Name _____

Title _____

Company _____

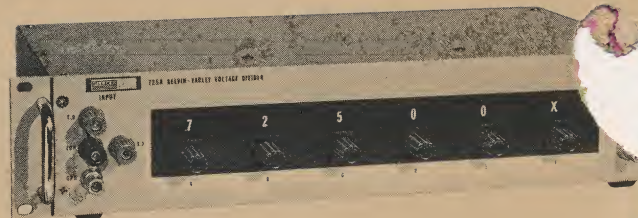
Street _____

City & State _____ Zip _____

Phone _____

16 NEW MODEL 725A SIX DIAL KELVIN-VARLEY VOLTAGE DIVIDER

At \$390, this is the most accurate divider in its class (± 5 ppm). It is designed to work in the laboratory, as a general purpose instrument, and also in production testing. It is the only available Kelvin-Varley divider with a "zero" power coefficient derating to 1100 volts dc.

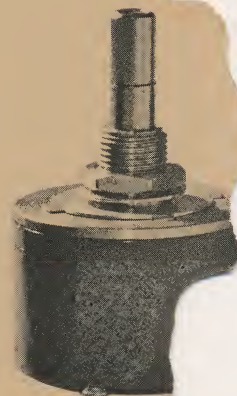


16

17 SEE THE NEW FLUKE 24A, VERNIER POTENTIOMETER,

Here's the new precision potentiometer that does the work of a ten turn pot in just $1\frac{1}{2}$ turns—and does it better! You get higher resolution, better terminal linearity, five times faster setting, smaller size, lower price, and meet MIL spec requirements, too.

Terminal linearity is excellent with no offset at either zero or 100 percent. Noise is less than 100 ohms ENR. End resistance is less than 1 ohm. Over a wide frequency range, there is zero phase shift. Price: \$8.50 for single units.



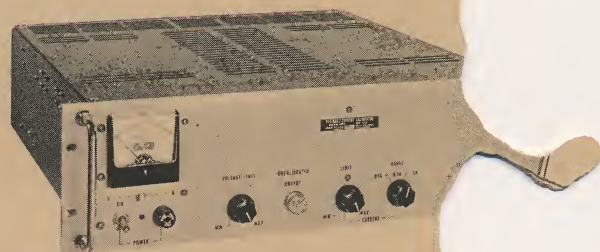
17

18 NEW HIGH-SPEED, REMOTELY PROGRAMMED CALIBRATORS

Model 315A is designed specifically for the high-speed, remote-programming of voltage, current limit, and polarity. Voltage changes can be programmed in increments as small as 100 microvolts with 1-2-4-8 input coding.

Accuracy is $\pm 0.025\%$ or $100 \mu\text{V}$ over a voltage range of 0 to 50 vdc. Output is 0 to 2 amperes. Stability is $\pm 0.005\%$ per day or $\pm 0.01\%$ per month. Line and load regulation are 0.0005% . Either terminal can be floated 500 volts above ground. Ripple is less than 500 microvolts RMS. Price: \$1,895.

Model 383B Voltage/Current Calibrator offers remote programming for systems application. Voltage range is 0 to 50 vdc, and 0 to 2 amperes, with 5 ppm line and load regulation. Both use Fluke's specially selected and processed zener reference in a temperature-controlled oven to assure excellent calibration accuracy and stability.



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